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Neither a blessing nor a curse: National Accounts for oil-exporting economies (The Venezuelan case)

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Abstract

This article exposes the “socio-logics” behind global oil prices and its influences on the pattern of development in oil exporting economies, an approach in which social relations around oil are understood as objects of study and not as obstacles to overcome. Thus, Oil rent and property rights have a central role to play in the explanation of the economic growth in oil-exporting economies. From this starting point the paper develops a proposal for calculating Oil Rent, in particular distinguishing between national prices and international oil rent and taking up the debate over the model of development of oil-rich economies. Using as an example the case of Venezuela between 1997 and 2008, this paper applies this adjustment and reveals the performance of the oil sector to be significantly different from the outcome under the previous international standardized practices using the System of National Accounts. The latter reveals the importance of identifying Non-Rent GDP and the Oil Rent just as an income for a proper understanding of the performance of oil-rich economies.

JEL Codes: E01; N16; N56; O13; P48; Q32.

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1. Introduction

The use of the System of National Accounts in the description of oil economies is a vast terrain to explore. Amongst other reasons this is because accounting for the impact of income arising from the exploitation of a natural resource requires specific indicators to capture the performance of such economies. The problems which resource-rich economies face in accounting for rents derived from their non-renewable resources have been extensively commented upon by a series of authors.² Many of them propose alternative methodologies in order to fill the gap left by conventional indicators: to improve the description of both the performance of resource-rich economies and the complex relationship between mineral rent derived from their exports and the behaviour of their factors of production in the growth process.

The international standard obliged national accounts statisticians to include the exceptional income generated by oil rent in the 'economic surpluses' of the sector. In other words, despite the rent component of income from natural resources, the oil sector has been treated as if it was just another industrial activity. The result is to distort the macro-economic impact of the oil sector in comparison with other industrial sectors, both national and international, an effect that has been also registered in the global indicators used to measure the performance of oil-rich economies.

In contrast, the System of National Account 2008 (SNA 2008) does include methodological tools to address accounting for rent derived from non-renewable natural resources, such as oil (in Chapter 7, Section E, Paragraphs 5 and § 7.107 to § 7.160). These allow us to make progress in developing the concepts and theoretical distinctions that should be taken into account in constructing a methodology for identifying the exact contribution of natural resources to production in these economies.

Using the example of Venezuela between 1997 and 2008 and the opportunity offered by SNA, in this paper a correction perhaps just "an alternative" is proposed in the accounting methodology for including Oil Rent in GDP. The application of this correction reveals the performance of the oil sector to be quite different from that

² Pineda & Rodríguez (2010); Vanoli (2001, 2002, 2005; 2008); El Serafy & Lutz (1989); Carvajal (1996), Hill & Harrison (2004), Repetto (1989), Baptista (2002), Mommer (1986), Rodríguez & Sachs (1999); Baptista y Mommer (1984); Díaz & Harchoui (1997); Ferrán, (1982); Murshed (2007, 2008).

which a conventional national accounting approach, based on standardized practices, portrays. Exploring the implications of this outcome, we propose a method for calculating both national and international Oil Rent, and engage with the theoretical debate about the modes of development of oil-exporting economies. The latter highlights the importance of calculating 'Non-Rent GDP', a measure proposed by Baptista (2002, 2010) and Mommer (1990) for arriving at an accurate representation of the economic performance of oil-exporting economies.

2. The Limitations of the System of National Accounts

Throughout the twentieth century and in all its versions, the System of National Accounts (SNA-UN 1953, 1968, 1993 and 2008) has been designed to evaluate economic performance in a market environment in which relative prices for different goods and services reflect, *grosso modo*, productivity differentials between them, thereby linking the prices of goods or services with their cost of production. Such costs are the sum of the intermediate inputs bought from other sectors, plus the amounts of labour (wages and salaries) and capital (depreciation and profits) used in production. National Accounts seek to register the price/cost chain from the initiation of the production of a good (intermediate consumption) to its final form and sale (final consumption). In this way, and assuming that marginal costs of production tend to move, because of competition, towards average costs, the items which make up the chain of production also represent the aggregation of equivalent market values – as a result of the productive process which created them (Ferrán, 1982; Lequellier and Blades, 2004). These premises serve to guarantee the comparability of prices between diverse sets of goods and services by way of a rate of exchange which is the monetary expression of – again: *grosso modo* – equivalent inputs of capital and labour.

When the price of a good or service does not behave according to these principles, or only responds to them in a very limited way, disproportions arise which increase or decrease the importance, in the National Accounts, of the sector which produces it. Oil is such a case because there are significant disproportionalities caused by the different rules governing its pricing, on the domestic as well as on the international market (Ferrán, 1982; Mommer, 1983).

2.1. Exceptional Features of Oil Accounting

A relatively common feature of oil exporting countries is that the price of oil on their domestic markets is fixed by governments, always below market prices, but often even at levels below their costs of production. In the latter case, this should require that the sale of oil at such prices on the domestic market be treated as implicitly subsidised; and in the former case there is no such subsidy, but still the question of opportunity costs will arise. Nevertheless, such subsidies may not be made explicit in national accounts because they are cross-subsidised by export revenues within the oil sector itself – at least in the case of Venezuela. One of the consequences of this practice is that the oil sector's GDP (production and refining) at market prices on the domestic market is underestimated, while the GDP of the non-oil sector is overestimated by an equivalent amount. Accounting for the internal market in oil economies therefore requires additional calculations in order to quantify the subsidies implicit in domestic regulated prices.

On the other hand, the presence of very significant rents in international prices is ruled by different laws. These rents reflect both fundamentally differences in geological endowment and the fact that oil is an important natural resource for the world economy - such that, even in the presence of competition, there is a very significant and systematic divergence of prices from average cost of production.³ As such differences originate in nature which competition cannot overcome; oil should be accounted for under different rules from those enshrined in the standardized practices of national accountants (Mommer 2003, Baptista 1996, 2010).

In other words, costs of production in the oil industry do not simply depend on the amounts of capital and labour employed, nor on the correction applied by the market to reflect marginal cost, nor on the reductions in costs achieved by the deployment of new technology in oil production; nature and access to nature play a major role.

It is important to point out, to understand the problem we are considering, in a historic perspective, that in industrial economies the significance of rent income from natural resources has been in secular decline, transforming it into “a statistical expression without wider significance and of little prevalence” (Baptista, 2010). This

³ This theoretical premise originates in the work of David Ricardo (1817), *Principles of Political Economy and Taxation*: Chapter III. London, John Murray (first edition).

is to say that, in the majority of industrial economies, rents derived from mining, agriculture or other natural resources-based industries could be considered insignificant enough not to deserve special treatment in the standardized practice of the System of National Accounts. However, the lengthy discussion on accounting for non-renewable natural resources which took place throughout the twentieth century (Vanoli, 2002), and as has also been demonstrated by Mommer (1998, 2002)⁴, the production of oil is a very special case in which international differences in costs of production and therefore rents are exceptional (Vanoli, 2002; Baptista, 2010) - such that it merits special accounting treatment (Mommer 1988).

3. Oil Rent, Oil GDP and Non-Oil GDP

In the majority of important oil-producing countries (exporter or not), National Accounts statisticians make a distinction between “Oil and Mining GDP” and “GDP of the Rest of the Economy”. This distinction is made in order to isolate the distortions which oil (or other mineral) price formation causes for the interpretation of economic performance. It also implicitly recognises the existence of significant rents in these economies. Different countries assign different names to this separation but the separation itself is common practice in oil-producing countries such as the UK, the USA, Mexico, Norway, Venezuela, Ecuador, Nigeria, Libya and Saudi Arabia.

Nevertheless, this kind of accounting separation is insufficient (Vanoli 2005; Vanoli, 2002) because it only separates out the oil and/or mining sectors from the rest of the economy – but it does not deal with the importance of rents⁵ in the isolated sector, and even less with its specific consequences on the rest of the economy. It is a device which isolates the problem, but it does not resolve it in accounting terms: oil income originates both from conditions of nature, as indicated above, and from inputs of capital and labour, in a combination which cannot be simply ignored.

⁴ Mommer has demonstrated the historical importance of Ricardian rent in the United States – which consisted of the well-known ‘Royalty’ rates of an eighth or a sixth.

⁵ In this study the use of the term **rent** refers the remuneration of the ownership on a non-produced mean of production (natural resource), in this case a mineral in the subsoil. Thus, the term rent does not represent the usual synonymous of **income**. It is also important to notice that our use of term rent is not related to the ‘quasi-rent’, the ‘economic rent’ or the ‘rent seekers’ meanings. The presence of an oil industry is not the only condition to be an Oil-Exporting Economy. An Oil-Exporting Economy means that oil have such importance in the overall economy representing a source of industrialization and also a source of international rent. In a very important study on oil rent and accounting, Asdrúbal Baptista (2005) shows how the concept of ground rent has been changing in the last 150 years. The first edition of the celebrated Palgrave Dictionary of Economics published between 1894 and 1899 the entry for the word rent associates the remuneration as an “income derived from the ownership of land and other free gifts of nature” (282). Baptista shows that in the second edition, a century later, to the same word expresses something different “is a payment for use of a resource, whether it be land, labour, equipment, ideas or even money” (141). The new meaning shows how the land has been converted to the capitalist economic practices.

In fact, the 1993 and 2008 System of National Accounts of United Nations provide for the possibility of treating mining rents in the national economy. However, the development of this new topic in national accounting has been taken with insufficient caution in the use of the terms. Indeed, national accountants assimilate oil rent income as a part of the operating surplus generated by the oil sector (Vanoli, 2002), which seems to exclude, a priori, a treatment of the extraction of non-renewable resources in the gross value added of the extraction industry, limiting the explanatory power of the resulting indicators. According to such a treatment, this industry would buy from its owner the resource in the ground at a price precisely measured by the rent, which would then represent an intermediate consumption for the mining and quarrying activity (Vanoli, 2002).

4. Natural Resources and National Accounts: an inconclusive debate

The construction of the indicators embraced by the System of National Accounts has been marked by a diversity of debate about the most adequate accounting content for achieving a general description of economic performance without losing the specific aspects of the individual economies being evaluated (Vanoli, 2002). Recurrent features of these debates have been how to account for patrimonial rights, the military and natural resources, categories which create difficulties for the kind of approach adopted by the standardized practices of the national accountants.

In the case of accounting for non-renewable resources it has to be said that despite the fertile debate, no specific method of accounting for them was established from the outset (Baptista 2010; Vanoli, 2002). Various authors explicitly recognise the absence of any convention within the National Accounts for dealing with non-renewable natural resources as non-produced goods (Stone, 1962; Vanoli, 2002). According to Vanoli (2008, 2002), the accounting problem which non-renewable natural resources present is due to the bias which the System of Accounts has towards capital and labour – such that subsoil resources are recorded and valued only as they are produced, which is both an inadequate and a redundant approach. However, it is important to note that the System of National Accounts (1993 and 2008, which is the most recent version) has made progress towards resolving this methodological gap. As previously noted, there is now a section on accounting for mineral rents which opens up an opportunity for achieving a permanent record of

the rents generated by natural resources. It also obliges us to develop a complementary theoretical framework which incorporates the role of oil rent within the general accounting framework and thereby in the description of the economic performance of oil-rich economies. Furthermore, this incorporation invites conceptual and methodological solutions with respect to qualitative and quantitative changes in the natural resource endowment: to the calculation of the stock of natural resources, their depletion and their possible degradation. It also suggests a particular methodology for calculating the contribution of natural resources to production.

5. Theory and Accounting for Rent

Non-renewable natural resources are not produced by labour, which therefore suggests that they should be subject to a different accounting treatment from produced goods. From a macro-economic perspective it is obvious that society as a whole has paid nothing for natural resources, whether or not they are renewable, simply because they have not cost anything to produce. From this it follows that the remuneration paid to the resource owner (or to the landowner) constitutes no more than a transfer of income (Mommer 1986; Adelman, 1964).

Under the conventional accounting treatment of oil economies, the balance between oil export GDP at international prices and non-oil GDP at factor cost reflects, by default, the quantification of Oil Rent on the basis of national values. It is for this reason that a precise measurement of the performance of oil economies should be based on the construction of a measurement of GDP which discounts the size of Oil Rent. It is the latter measurement of GDP which authors such as Baptista (2002, 2010) and Mommer (2002) have referred to as 'non-rent' GDP (GDPnr).

In Venezuela, the theory of rent and its application to the analysis of the performance of oil economies has stimulated a fruitful theoretical debate which has produced a measurement methodology which respects the specificities of these economies. Set in a Venezuelan context, the *Economic Theory of Rent Capitalism* (Baptista 1997, 2010; Baptista and Mommer, 1986, 1987) describes a specific system in which internationally harvested oil rent is articulated with other market relationships. Although rent is historically a usual category within the social structure of capitalist development, it has been so, however, as a category to overcome, to be subordinated and minimized by the hegemony of capital over landed property. Thus

the case of Venezuela and the Third World oil exporting countries generally, throughout the twentieth century illustrates an atypical process in which the international division of labour, combined with local economic conditions and growing international oil rent drive the creation of an internal market. This involves a capitalist system, but one in which the development process has been historically differentiated by the role of the distribution of rent in driving national productive activity - which led to the concept of 'Rent Capitalism' (Baptista and Mommer, 1986).

Under Rent Capitalism the state is generally both the owner of the natural resource and the distributor of the rent it generates – using instruments such as overvaluation of the national currency (i.e. selling cheap dollars), a low level of taxation, and public expenditure and investment. The process of capital accumulation and the remuneration of factors of production (capital and labour) are hence determined by, on the one hand, exogenous factors and, on the other hand, by expansions in domestic demand, whereas exports may be hampered by an over-valuated exchange rate (Mommer, 1986). In particular, *The Economic Theory of Rent Capitalism* (Baptista, 2010) has made important advances in the design of specific accounting indicators appropriate to oil economies.

6. Factors of Production and the Calculation of Oil Rent

Taking off from the foregoing discussion, we can now begin to elaborate a specific methodology to account for the oil sector and Oil Rent. First of all, accounting for the oil sector should record three sectors of production and two economic sub-sectors.

The three factors of production are Labour, Capital and Oil-bearing Land which in turn generate three types of income. Two of these are conventional (those from labour and capital) and originate in the national economy. Together they constitute value added in the process of industrial production. The third arises from the price of a natural resource – as an undistinguished part of the market price once extracted - either as the outcome of official policy with respect to the domestic market or of the behaviour of the international oil market.

The economic sub-sectors whose activity requires to be accounted for are the Export Sector (reflecting the effect of transfers between conventional GDP and the GDP of the rest of the world) and the Domestic Market (which reflects the impact which

these transfers could have on the relative importance of the oil sector and the non-oil sector within the national economy concerned, whenever a country is an oil producer though not necessarily an oil exporter).

Given the scale of oil GDP and the sub-sectors which it embraces, below is a preliminary illustration of how International and Domestic Oil Rents are calculated.

These are shown to be the difference between:

- (+) the prices of the raw material
- (-) total costs comprising:
 - Wages and Salaries,
 - Capital Depreciation
 - Exploitation, Development and Extraction
 - the "Normal Rate of Profit"⁶ of the oil sector

Thus oil GDP is adjusted differentiating between the remuneration of all the factors of production involved: labour, capital and land; and differentiating between the domestic market and exports. On the other hand, this proposed methodological framework assumes, as a matter of fact, that the oil industry is a *service*: it does not actually produce oil, it only extracts it, transports it, refines it and sells it. As such it receives the 'normal' rate of profit which would prevail under conventional conditions of competition. In this way, Oil Rent is understood as mineral rent which owes its accounting existence to the particular conditions of the national and international market for natural resources, before taxes. It is calculated as the difference between the price of oil at the well-head and total costs including the remuneration of capital and labour. On the other hand, Oil Rent is an accounting concept distinct from both Oil Fiscal Revenue and Oil Fiscal Rent, even though these three terms are often used as if they were interchangeable by oil exporting countries. Oil Fiscal Revenue contains within it Oil Fiscal Rent but it also embraces other elements. Moreover, Oil Fiscal Rent is not entirely derived from International and National Oil Rents, given that the former captures other sources of income which are not generated by the particularities of the oil market.

7. Fundamental Accounts for an Oil Economy: Non-Rent GDP

As we have been discussing, the accounts of the oil sector comprise two dimensions.

On the one hand, it has income as a National Productive Activity and, on the other

⁶ The accounts of the non-oil sector of the economy have been used to calculate normal profit in the oil sector. This is done because the non-oil sector is the accounting yardstick which most closely reflects the normal rate of profit of national production without the exceptional presence of profits derived from International Oil Rent. Asdrúbal Baptista has developed six rigorous methods for calculating the size of Oil Rent in the Venezuelan economy. Our concerns in this article only require the use of one of these methods, using the surplus of the non-oil sector in the calculation of the adjusted profit of the oil sector. On the other hand, we have taken into account the development of methodologies tested in the Venezuelan context by Baptista (2002), Mommer (1984) and by the Central Bank of Venezuela (2010).

hand, it attracts International Rent. Furthermore, the adjusted accounts of the oil sector consolidate both taxes on consumption and any subsidies which may be implicit in the domestic regulation of hydrocarbon prices.

*Table 1: Venezuela: Consolidated Non-Rent GDP of the Oil Sector 2006
(Thousand million -10⁹- Bolivars 2006. Adjusted View)*

Sales 3.523 millions of barrels/day	<i>thousand million Bs</i>	
Depreciation	5.575	National Productive Activity
Wages and Salaries	8.620	
'Normal' Operating Surplus of the Oil Sector	6.642	
Non-Rent Oil GDP	20.837	
Internal Market: Royalties and Implied Net Subsidy	-2.778	
Taxes on Consumption	290	
Internal Market: Royalties and Implicit Subsidy net of Taxes on Consumption		-2.458
External Market: International Oil Rent		95.474
		International Rent Income

Source: Central Bank of Venezuela. "Petróleo y Otros Datos Estadísticos" Ministry of Energy and Petroleum. Author's calculations. 2006

The calculation in current prices for the year 2006 shows that Oil Rent, which is the international remuneration of the natural resource, amounted 95,474 thousand million Bolivars. In Table 2 total GDP is shown from the income side in current prices for 2006. It is also broken down according to sector of activity and into the adjusted (non-rent) and conventional forms.

Table 2: Venezuelan Non-Rent GDP from the Income Side in 2006 (current prices)

<i>thousand million -10⁹- Bolivars</i>	Total	%	Non-Oil Sector	%	Oil Sector	%
Fixed Capital Consumption	20.302	7,6	14.727	6,0	5.575	26,8
Wages and Salaries	117.481	44,1	108.861	44,3	8.620	41,4
Other Incomes	43.773	16,4	43.773	17,8	-	-
<i>Operating Surplus</i>	<i>84.950</i>	<i>31,9</i>	<i>78.308</i>	<i>31,9</i>	<i>6.642</i>	<i>31,9</i>
GDP at factor cost	266.506	100	245.669	100	20.837	100
Other taxes on Production	36.908		36.618		290	
GDP at market prices	303.414		282.287		21.127	
Implicit Domestic Market Subsidy			-2.778			
Non-Rent GDP	300.636	100	279.509	93	21.127	7%
International Oil Rent:					95.474	
Conventionally-measured GDP	396.140	100	282.286	71,3	113.853	28,7

Source: Petr leo y Otros Datos Estad sticos. Ministerio de Energ a y Petr leo. Central Bank of Venezuela. Author's calculations. 2006

This Table contains a representation of the proposed framework of national accounting for an oil economy, showing, in the case of Venezuela, the implicit

subsidy received by the Non-oil Sector and the International Oil Rent received by the Oil Sector. Thus, in the absence of oil rent, Oil GDP at factor cost is 20,837 thousand million Bolivars, that is only 7% of total Non-Rent GDP. It can also be seen that Oil Rent is 4.6 times the size of Non-Rent Oil GDP. Non-Rent GDP is a synthetic indicator which embraces the productive activity of the most important industry in the Venezuelan economy – without recourse to separating out the oil sector and the non-oil sector which is the conventional practice. On the other hand the subsidies implicit in the prices of hydrocarbons consumed in the domestic market represent 1% of the non-oil sector.

The conventional calculation shows us that when Oil Rent is included in the Operating Surplus of the oil sector, Oil GDP represents 28.7% of total conventional GDP, an obvious over-estimate. Moreover, the conventional measure of Venezuela's GDP exceeds adjusted GDP by 24.1%. In other words, almost a quarter of conventional GDP is not related to national productive activity but rather to the international remuneration of a natural resource.

8. Fundamental Statistics for Oil Economies

Oil economy accounting statistics require specific tools which reveal the purchasing power transferred to them in the form of international oil rent. Furthermore, and as is quite evident, they should take into account changes in the relative prices of national production over the years. In subtracting Oil Rent from the calculation of Oil GDP, the scope of the latter is limited to the productive activity of the sector, thereby insulating it from the fluctuations caused by the behaviour of oil prices in the international marketplace. It thereby allows an interpretation which is homogeneous from statistical and accounting perspectives.

8.1. Changes in the Contribution of Adjusted and Non-Adjusted Oil GDP to Total GDP

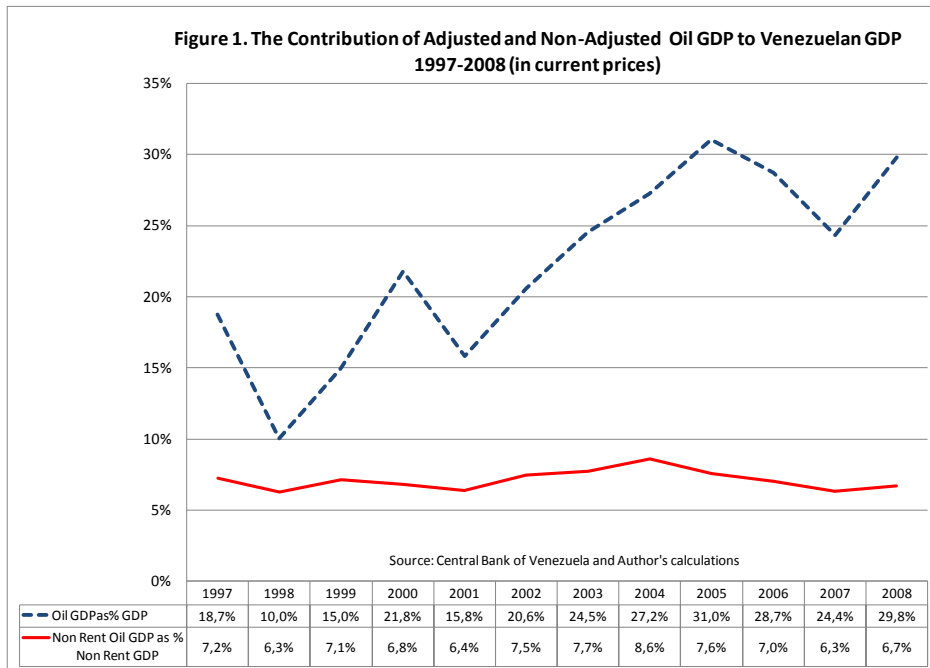
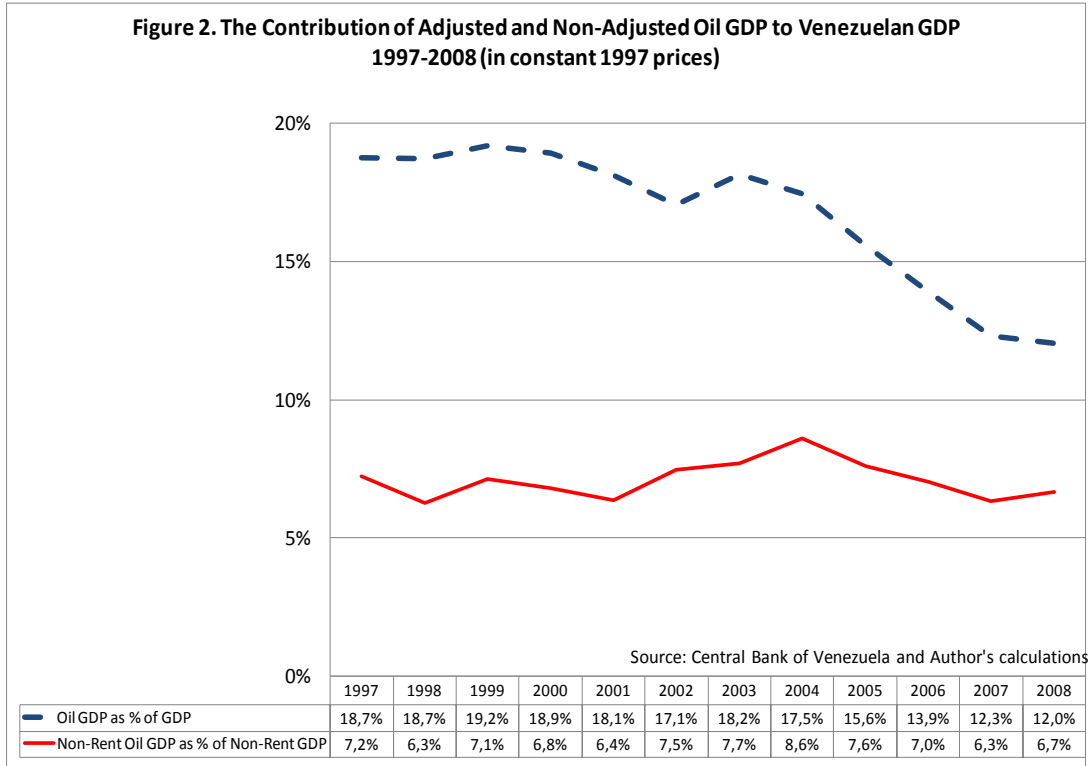


Figure 1 shows the changes in the contributions of both conventional and adjusted (non-rent) Oil GDP to total GDP (at current prices) between 1997 and 2008. There is a sharp contrast between the two series: while the contribution of conventionally-measured Oil GDP varies between 10 and 31% of GDP, adjusted (non-rent) oil GDP exhibits both a lower and more stable contribution to GDP (non-rent), between 6.3% and 8.6%. The extreme variations in the case of the former have their origin in the behaviour of international oil prices which in turn cause variations in the size of the international Oil Rent accruing to the Venezuelan economy. In the case of the latter, in contrast, when the oil sector is treated as a service activity – on the basis of the normal ‘cost’ of such services – Non-Rent Oil GDP shows much less variation; its evolution is relatively stable, corroborating and empirically verifying the performance of the sector.



The variations in the contribution of oil GDP to Venezuela's total GDP measured conventionally and in real terms (in 1997 Bolivars) can be seen from Figure 2 (broken line) to be strongly influenced by the behaviour of international oil prices only in the base year; thereafter it just reflects the evolution of volumes produced.⁷ The contribution of Oil GDP to GDP was in decline between 1997 and 2008, which reflects the decline of production. In contrast, the contribution of adjusted Oil GDP (continuous line) to adjusted GDP varies between 6.3% and 8.6% of GDP and even grows somewhat during a part of the period, possibly because of the evolution of production in the Orinoco Belt (2002 onwards) and/or the impact of the oil strike in Venezuela between December 2002 and February 2003.

⁷ Given the large variety in the inputs used by the oil sector, a first approximation of deflated series uses the same deflator as for the non-oil sector. A detailed study of deflators for the non-rent oil sector would surely discover specific statistical tools for the sector. Nevertheless, the application of the non-oil sector deflator fits the purposes of this paper.

8.2. Oil GDP and the Interpretation of Economic Performance

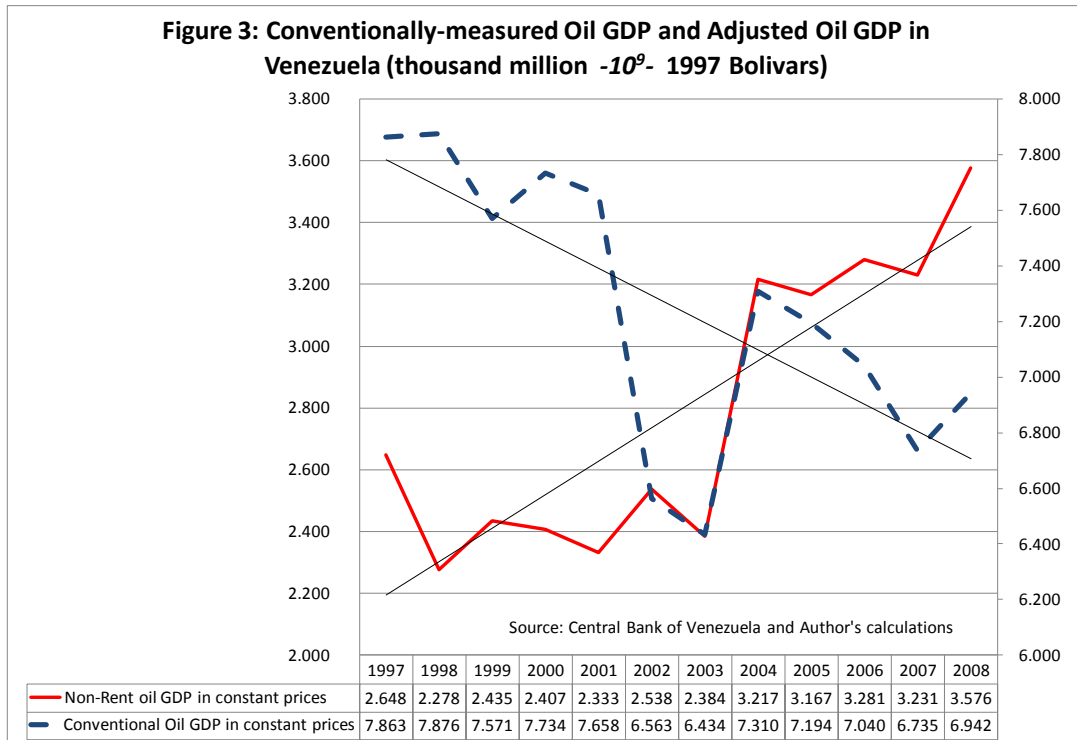


Figure 3 shows the performance of both adjusted and non-adjusted Oil GDP at constant prices (1997 Bolivars). The conventional, non-adjusted calculation (discontinuous line), reveals a declining trend while the adjusted calculation (continuous line) shows that Non-Rent Oil GDP was on a growing trend throughout the period. However, both series show a decline in Oil GDP between 2002 and 2003, followed by a recovery in 2003 and 2004. The decline, as we have already mentioned in the context of Figure 2, was essentially due to the development of production in the Orinoco Belt and/or the effect of the oil strike. However, the general trends in the two series are quite different, even though the way Non-Rent Oil GDP behaves is more consistent with the performance of Venezuelan oil productive activity.

8.3. Choice of Base Year

In the case of Venezuela, the lack of an official macroeconomic series which links new base year data with series based on previously-used base years, underlines the necessity for a specific methodology for linking series in oil economies. The distinct series covering Venezuelan GDP, which use the years 1997 and 2007 as base years (the official base years chosen by the Central Bank of Venezuela) behave quite differently, to the extent that the difference between them exceeds 12 percentage points. This happens because in 1997 the price of oil was significantly less than in

2007. The level of international oil prices (and therefore the level of International Oil Rent) was very different such that linking the two series becomes impossible.

In other words, the discrepancies between the series arise from the differences in the price weights according to the base year selected, which in turn affects the calculation of Oil GDP as conventionally measured (Rodriguez, 2004). In consequence, the validity of Venezuelan Central Bank's constant price series is restricted to periods during which the international price of oil has been stable.

Non-rent GDP, on the other hand, does not reflect these variations in International Mineral Rent because its contribution to GDP does not vary with international oil prices. Of course it would take a detailed technical study to allow the trend in Non-Rent Oil GDP to be adjusted to reflect the specificities of the sector, but it would probably result in variations similar to those presented here.

In the same way, constructing a series to express changes in the real value of International Oil Rent must take into account the need to use an appropriate deflator. In this case, appropriate would undoubtedly mean using a deflator which reflects the international purchasing power of the International Oil Rent. In this paper, we have made recourse to the most straightforward of the possible deflators – by using the price index of exports of goods and services by the United States.

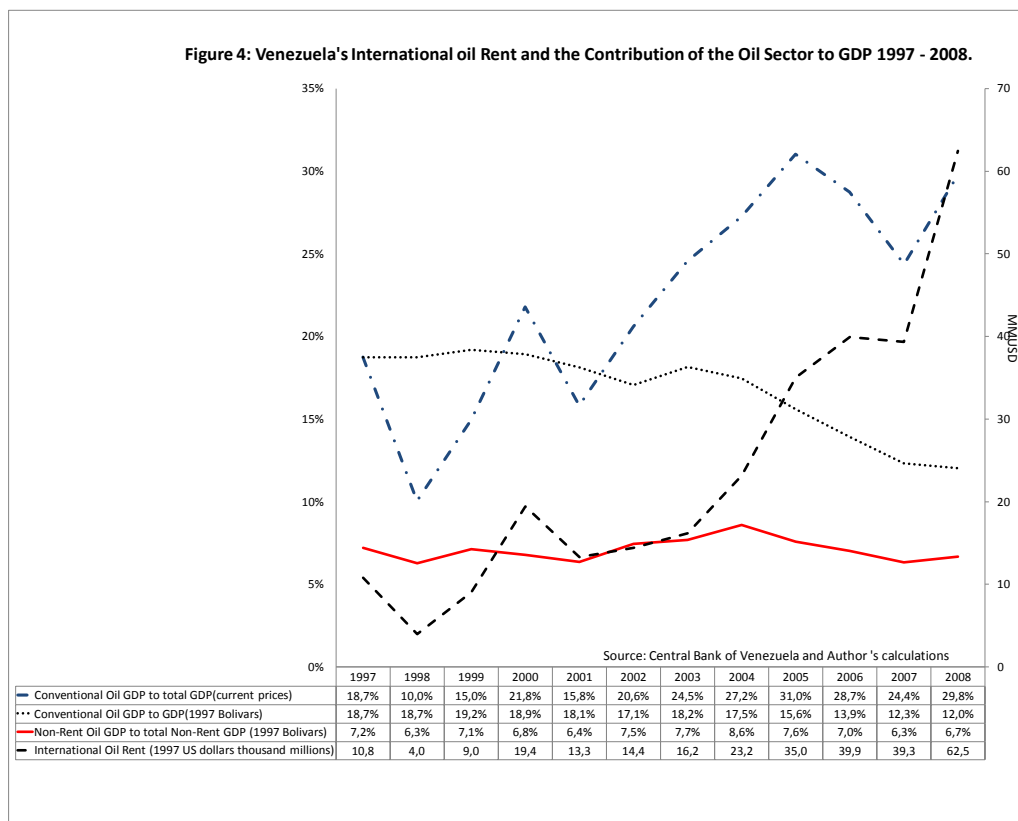


Figure 4 shows the profile of Venezuela's International Oil Rent (discontinuous line) in real terms, after it was deflated by our chosen international price index, given that this rent is a transfer of purchasing power from abroad which does not generate any national cost whatsoever. As might be anticipated the resulting trend in International Oil Rent is similar to that of the contribution of Oil GDP to total GDP, calculated conventionally in current terms (broken line with single points).⁸

On the other hand, it can be observed that in the real price series (expressed in 1997 Bolivars) which has undergone the adjustment advocated in this paper (i.e. to a non-rent basis) Oil GDP as a productive activity doesn't contribute more than 9% of total GDP (unbroken line). In contrast, if the calculation is made in the conventional way, the contribution of Oil GDP is seen to be on a declining trend, oscillating between 12 and 20% of GDP (broken line with double dots).

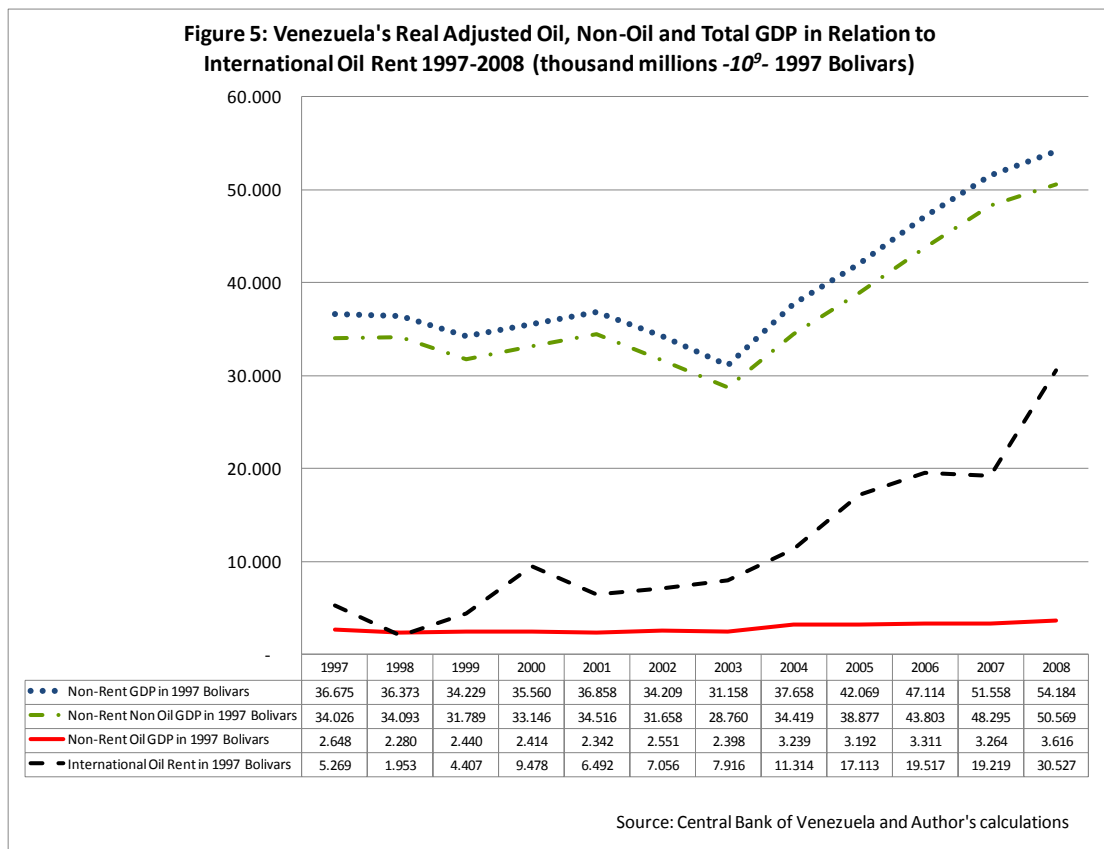
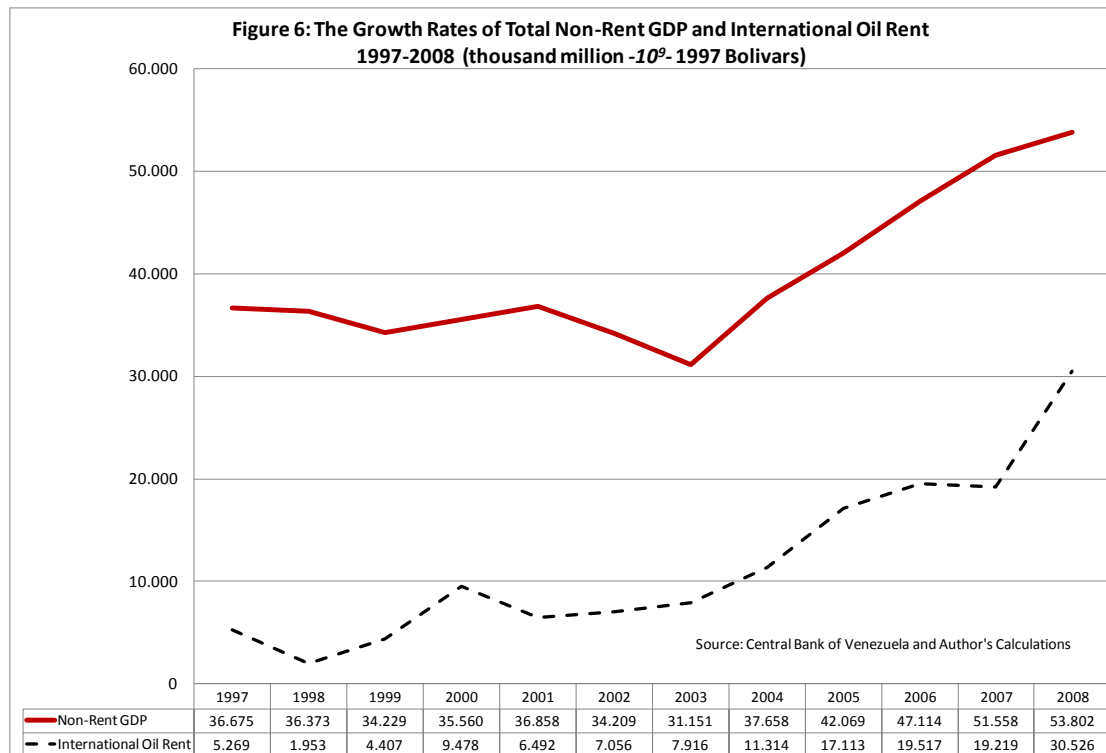


Figure 5 shows different aspects of the performance of Venezuela's oil economy: Total Non-Rent GDP (dotted line), Non-Rent, Non-Oil GDP (broken line with single dot), Non-Rent Oil GDP (continuous line) and International Oil Rent (broken line).

⁸ Asdrúbal Baptista (2002) has undertaken a sophisticated statistical exercise to construct a synthetic price index for deflating Venezuela's International Oil Rent. It combines the export price indices of those countries from which Venezuela imports significant amounts of goods and services.

These aspects correspond to the material way in which International Oil Rent participates, in a very significant way, and on a par with capital and labour, in the creation of Venezuela's national income. As such the resources available for economic development and the modes of access to economic welfare and growth in oil-producing countries adopt forms quite distinct from those suggested by traditional economic theory – which systematically ignores the role of natural resources as a source of international rent.



Finally, Figure 6 summarises the behaviour of the two key performance indicators for Venezuela's oil economy: Non-Rent GDP and International Oil Rent. It should be understood that total Non-Rent GDP is an independent variable produced by the national economy, while International Oil Rent is a transfer via the international marketplace which is not produced by the national productive apparatus. Once corrected for International Oil Rent, the measure of Non-Rent GDP registered a rate of growth of 5.6% between 1999 and 2008, almost one percentage point above the rate of growth registered by conventionally measured GDP (4.7%). This calculation demonstrates the importance of calculating Non-Rent GDP to correct conventionally measured GDP and its associated growth rate.

9. Conclusions

Studies on oil-exporting economies are usually based on a consensus between academic and policy makers: incomes from natural resources are temporary and shall cause a slow growth or a disease in the whole national economy. In addition, most perspectives always explain the presence of oil revenues as an obstacle for economic growth and propose alternatives to avoid this temporary windfall in favour of a conventional process of development. Those perspectives have neglected the classical theory of rent whose concepts lead us to understand institutional and political factors as main determinants in the conformation of global oil prices and in the structuration of a particular model of development in oil-exporting economies.

Property rights are one of the most important factors which determine global oil prices (Bina, 2012; Mommer, 2002) and generate incomes in national oil exporting economies (Baptista, 2010; Murshed, 2009). In that sense oil-exporting economies represent a special group due to the presence of the international oil rent generated by those property rights. Oil is a natural resource with great importance in international markets, in contexts dominated by the ownership of State over the subsoil. These former conditions are the centrepiece of an historical and recurrent model of development called "Rent Capitalism" (Baptista, 2010; Mommer, 2002), an atypical process in which the international division of labour, combined with local economic conditions and growing and recurrent international oil rent lead the creation of an internal market with a particular national prices and income distribution⁹.

This approach have led us to understand the social relations around oil as an object of study and not as an obstacle to overcome, which is a different reading of the performance of oil-exporting economies. In other terms, in this article oil incomes (or oil rent) do not represent a blessing neither a curse; they represent only an income with specific characteristic in international market and in national economies.

⁹ The oil rent is an exceptional and historical international income for the State, which represents a huge proportion of the incomes received for its ownership over the Oil. According to statistical data, in Oil-Exporting Economies, rent represents more than 50% of the Fiscal Income. According to Baptista (2010:60), the ratio International Oil Rent and Net Domestic Product in Venezuela as a long term indicator is: 1922-1942: 5.7 %; 1943-1958: 13.9 %; 1959-1972: 19.2 %; 1973-1982 26.3 %; 1983-1998 12.6 %; 1999-2008 22.5 %.

The incorporation of rent derived from natural resources by the United Nations' System of National Accounts has created the opportunity to undertake a brief theoretical and methodological analysis of the particular conditions observed in the economic performance of oil-exporting economies. Furthermore, it has allowed us to demonstrate the importance of a specific accounting framework which can register with precision the scale of Oil Rent in GDP in general and in the oil sector in particular.

For purposes of this article the performance of oil-exporting economies depends on three factors of production (Labour, Capital and Oil-bearing Land), represented in Non-Rent GDP and in both National and International Oil Rent. The historical development of these indicators is the concrete expression of the model of development referred to as 'Rent Capitalism', the performance of which is tightly linked to the availability of the international oil rent and the use made of it by the social actors in these economies. The proposed accounting framework is able to represent such a model of development, also creating a point of departure for novel interpretations of the particular characteristics assumed by the distribution of income and the economic and social development of an oil country. The latter will be the subject of subsequent papers.

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